

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P388660

Luminaire Tested: **24CZ2-130VHE-UNV-L940-CD2-SWPD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P388660
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-130VHE-UNV-L940-CD2-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11195.8 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

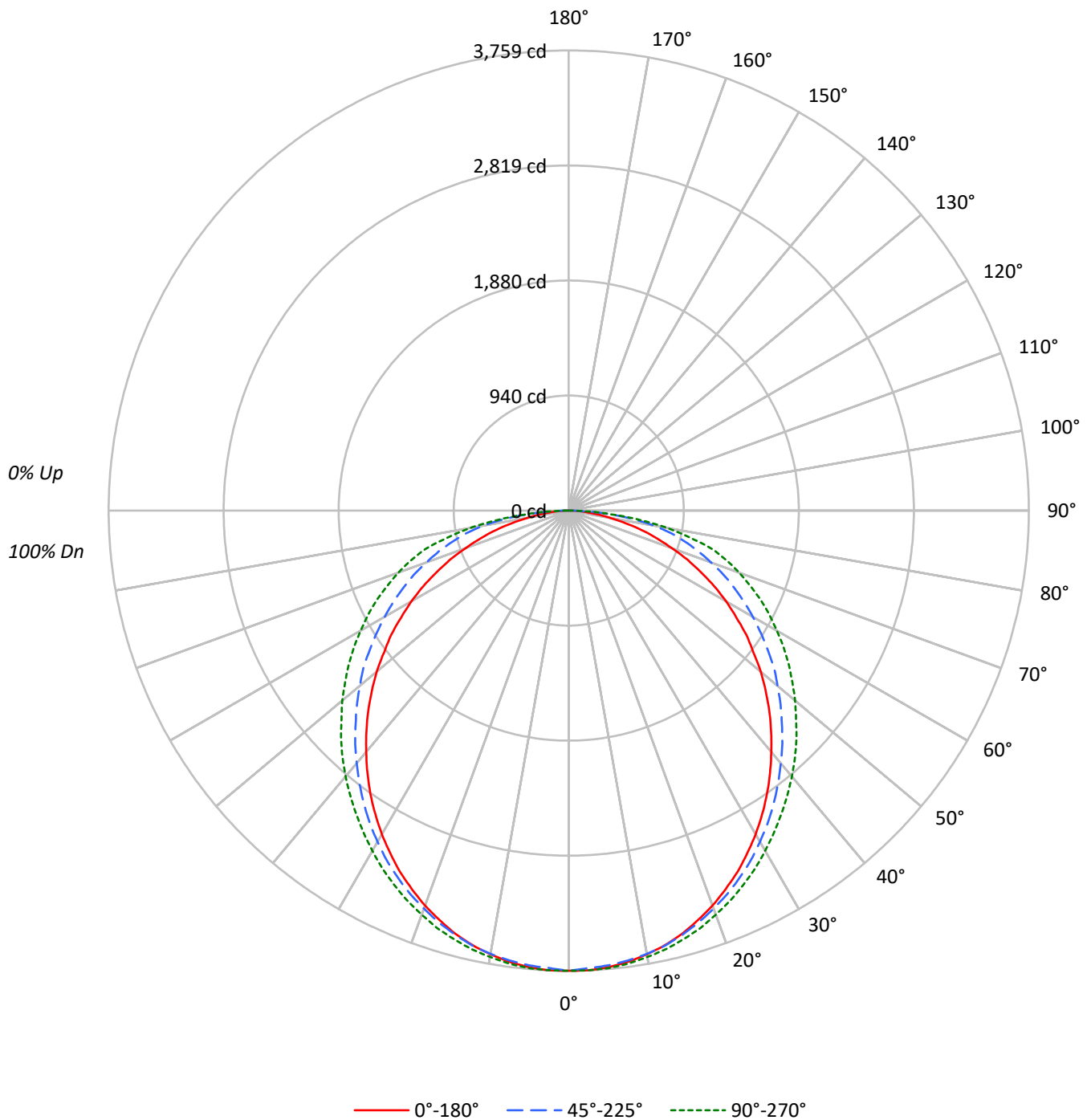
Input Watts (W): 90.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	108	103	98	94	105	100	96	92		96	93	89			92	89	87			89
2	98	89	82	76	95	87	80	75		83	78	73			80	75	71			77
3	89	78	69	62	86	76	68	62		73	66	61			70	64	60			68
4	81	69	59	52	79	67	59	52		65	57	51			62	56	51			60
5	74	61	52	45	72	60	51	45		58	50	44			56	49	44			54
6	69	55	46	39	67	54	45	39		52	44	39			50	44	38			49
7	64	50	41	35	62	49	40	34		47	40	34			46	39	34			45
8	59	45	37	31	58	45	36	31		43	36	30			42	35	30			41
9	55	42	33	28	54	41	33	28		40	33	27			39	32	27			38
10	52	38	30	25	51	38	30	25		37	30	25			36	29	25			35

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5058	5058	5058
5°	5057	5037	5067
10°	5028	5023	5059
15°	4986	4997	5049
20°	4917	4954	5029
25°	4837	4909	5009
30°	4743	4853	4987
35°	4640	4793	4971
40°	4522	4732	4981
45°	4408	4685	5005
50°	4286	4662	5053
55°	4155	4654	5145
60°	3992	4676	5279
65°	3783	4747	5508
70°	3513	4866	5821
75°	3205	5109	6313
80°	2634	5501	6312
85°	2019	5076	5422



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	355.5	3.2
10°-20°	1014.9	9.1
20°-30°	1527.3	13.6
30°-40°	1830.3	16.3
40°-50°	1907.4	17.0
50°-60°	1774.6	15.9
60°-70°	1461.6	13.1
70°-80°	995.4	8.9
80°-90°	328.6	2.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2897.8	25.9
0°-40°	4728.1	42.2
0°-60°	8410.1	75.1
0°-90°	11195.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11195.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3759	3759	3759	3759	3759	
5°	3744	3744	3729	3748	3752	355
15°	3580	3583	3587	3621	3624	1008
25°	3258	3273	3307	3363	3374	1500
35°	2825	2858	2918	2997	3027	1766
45°	2317	2365	2462	2586	2630	1787
55°	1771	1831	1984	2141	2193	1579
65°	1188	1289	1491	1666	1730	1179
75°	616	755	983	1158	1214	650
85°	131	254	329	351	351	162
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3759.0	3759.0	3759.0	3759.0	3759.0
2.5°	3759.0	3759.0	3740.3	3759.0	3759.0
5°	3744.0	3744.0	3729.1	3747.7	3751.5
7.5°	3717.8	3721.6	3706.6	3729.1	3732.8
10°	3680.5	3684.2	3676.7	3699.2	3702.9
12.5°	3635.6	3639.4	3639.4	3665.5	3669.3
15°	3579.6	3583.3	3587.1	3620.7	3624.4
17.5°	3508.6	3519.8	3527.3	3568.4	3575.9
20°	3433.9	3445.1	3460.0	3504.9	3512.3
22.5°	3347.9	3362.9	3389.0	3437.6	3448.8
25°	3258.3	3273.2	3306.8	3362.9	3374.1
27.5°	3157.4	3179.8	3220.9	3280.7	3295.6
30°	3052.7	3075.2	3123.7	3187.3	3209.7
32.5°	2940.7	2970.5	3026.6	3097.6	3120.0
35°	2824.8	2858.4	2918.2	2996.7	3026.6
37.5°	2701.5	2738.9	2809.9	2895.8	2933.2
40°	2574.5	2619.3	2694.0	2794.9	2836.0
42.5°	2447.4	2488.5	2581.9	2690.3	2735.1
45°	2316.6	2365.2	2462.4	2585.7	2630.5
47.5°	2182.1	2230.7	2346.5	2477.3	2518.4
50°	2047.6	2096.2	2227.0	2365.2	2413.8
52.5°	1901.9	1965.4	2114.9	2253.1	2301.7
55°	1771.1	1830.9	1984.1	2141.0	2193.3
57.5°	1621.7	1692.6	1860.8	2025.2	2081.2
60°	1483.4	1558.1	1737.5	1905.6	1961.7
62.5°	1341.4	1423.6	1614.2	1786.1	1849.6
65°	1188.2	1289.1	1490.9	1666.5	1730.0
67.5°	1050.0	1154.6	1367.6	1546.9	1603.0
70°	893.0	1020.1	1236.8	1416.1	1479.7
72.5°	758.5	885.6	1113.5	1289.1	1352.6
75°	616.5	754.8	982.7	1158.3	1214.4
77.5°	474.5	627.7	855.7	990.2	1008.9
80°	340.0	500.7	709.9	788.4	814.6
82.5°	239.1	384.9	523.1	575.4	590.4
85°	130.8	254.1	328.8	351.2	351.2
87.5°	56.0	108.4	130.8	134.5	138.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)